

CLAIMS

What is claimed is:

1. A method for providing lawful intercept of a media stream in a media gateway, the method comprising:
 - 5 (a) establishing a call context between a first termination and a second termination, the call context defining a call media stream between the first and second terminations associated with a call between first and second end users; and
 - (b) establishing a first tap context between the first termination and
10 at least one first tap termination, the first tap context defining a one-way tap media stream from the first termination to the at least one first tap termination, the tap media stream carrying a portion of the call media stream from the first termination to the at least one first tap termination.
- 15 2. The method of claim 1, comprising establishing a plurality of second tap contexts between the first termination and a plurality of second tap terminations.
3. The method of claim 2, wherein establishing a plurality of second tap terminations includes establishing the second tap terminations
20 independently from the at least one first tap termination and from each other.
4. The method of claim 1, wherein the first tap context includes a first tap media stream carrying an ear portion of the call media stream from the first termination to the at least one first tap termination and a second tap

media stream carrying a mouth portion of the call media stream from the first termination to the at least one first tap termination.

5. The method of claim 1, wherein the first tap context includes a tap media stream from the first termination to the at least one first tap termination, wherein an ear portion of the call media stream and a mouth portion of the call media stream are combined in the tap media stream.
6. The method of claim 1, wherein the first tap context includes a tap media stream from the first termination to the at least one first tap termination, wherein the tap media stream carries the mouth portion of the call media stream.
7. The method of claim 1, wherein the first tap context includes a tap media stream from the first termination to the at least one first tap termination, wherein the tap media stream carries the ear portion of the call media stream.
8. The method of claim 1, comprising prior to establishing the first tap context, confirming that the first tap context is legally authorized.
9. The method of claim 1, comprising, after establishing the first tap context, modifying the call context such that the media stream between the first termination and the second termination is bi-directional.
10. The method of claim 1, wherein establishing the first tap context between the first termination and the first tap termination includes sending a command from a media gateway controller to the media gateway instructing the media gateway to create a new context, the new

context including a one-way media stream from the first termination to the first tap termination.

11. The method of claim 4, wherein establishing the first tap context between the first termination and the first tap termination includes
5 sending a command from a media gateway controller to the media gateway instructing the media gateway to create a new context, the new context including the first media stream carrying the mouth portion of the call media stream from the first termination to the first tap termination and the second media stream carrying the ear portion of the call media
10 stream from the first termination to the first tap termination, the first and second media streams being configured as one-way streams.
12. The method of claim 11, wherein the command from the media gateway controller to the media gateway instructing the media gateway to create the new context identifies at least one tap termination, identifies the first
15 termination as a media source, and indicates a tapping mode.
13. The method of claim 12, wherein the tapping mode is one of ear, mouth, and ear and mouth.
14. A media gateway with lawful intercept capability, the media gateway comprising:
20 (a) a plurality of network interfaces for sending and receiving media streams to and from external networks;
(b) a plurality of voice processing resources operatively associated with the network interfaces for processing the media streams received from the external networks; and

- (c) a controller operatively associated with the network interfaces and the voice processing resources for controlling the network interfaces and the voice processing resources to establish a call context in the media gateway for a call between first and second end users, the context including first and second terminations, and, in response to a request for a lawful intercept of the call, for creating a tap context, the tap context including one of the first and second terminations and at least one tap termination.
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15. The media gateway of claim 14, wherein the network interfaces include packet network interfaces for sending and receiving packetized voice.
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16. The media gateway of claim 15, wherein the packet network interfaces include at least one of ATM, Ethernet, POS, and MPLS interfaces.
17. The media gateway of claim 15, wherein the packet network interfaces send and receive packetized voice using at least one of AAL1, AAL2, and VoIP protocols.
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18. The media gateway of claim 14, wherein the network interfaces include TDM network interfaces for sending and receiving TDM-encoded voice.
19. The media gateway of claim 14, wherein the network interfaces include packet network interfaces for sending and receiving packetized voice and TDM interfaces for sending and receiving TDM-encoded voice.
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20. The media gateway of claim 19, wherein the packet network interfaces include at least one of ATM, Ethernet, POS, and MPLS interfaces.

21. The media gateway of claim 19, wherein the packet network interfaces send and receive packetized voice using at least one of AAL1, AAL2, and VoIP protocols.
22. The media gateway of claim 14, wherein at least one of the first and
5 second terminations comprises a packet network interface and the tap termination comprises a TDM network interface.
23. The media gateway of claim 14, wherein each of the first termination, the second termination, and the tap termination have one of a TDM interface and a packet-based interface.
- 10 24. A system for providing lawful intercept of a media stream in one or more media gateways, the system comprising:
 - (a) a media gateway controller for generating media gateway control commands for establishing contexts through media gateways for calls between first and second end users that use the media
15 gateways; and
 - (b) at least one media gateway operatively associated with the media gateway controller for, in response to the commands from the media gateway controller, establishing a call context for a call between first and second end users, the call context including
20 first and second terminations being initialized for bi-directional communications, and for, in response to commands from the media gateway controller, establishing a tap context with at least one tap termination, the at least one tap termination referring to one of the first and the second termination and having one-way

media steams from the one of the first and second termination to
the at least one tap termination.

25. The system of claim 24, wherein the media gateway controller is adapted to control the media gateway to perform the lawful intercept of
5 the media stream using extensions to a media gateway control protocol.
26. The system of claim 25, wherein the extensions include a command for intercepting at least a portion of a media stream defined in an existing context within the same media gateway.
27. The system of claim 24, wherein the at least one media gateway
10 includes packet interfaces for sending and receiving packetized media stream communications.
28. The system of claim 24, wherein the at least one media gateway includes TDM interfaces for sending and receiving TDM-encoded media information.
- 15 29. The system of claim 24, wherein the media gateway includes packet interfaces for sending and receiving packetized media streams and TDM interfaces for sending and receiving TDM-encoded media streams.
30. The system of claim 24, wherein the media gateway controller and the at least one media gateway are located on the same physical platform.
- 20 31. The system of claim 24, wherein the media gateway controller and the at least one media gateway are located on separate physical platforms.